

ObservationReport

ObservationID

0363

on

2025-02-21 19:56

all measures in mm



Main Object	NGC1499
Common Name	California Nebula
Alternate Name	LBN756
Visual Mag. Size	5,00 145x40'
Distance	1800 ly
Object R.A. DEC coord.	04h 02m 08.25s +36° 40' 42.4"
Description	Bright Nebula
Constellation	Perseus
Other Objects	<input type="text" value="Xi Persei"/>



20250221_NGC1499_ASI2600_0363-01WM.jpg

StarImage Link [NGC1499_20250221](#)Telescopius Link [ngc-1499](#)Wikipedia Link <https://en.wikipedia.org/>

Image Properties

Work Status	Published	Rating	****
Source Format	Photo	Picture Center R.A.	4°01' 50.986"
Tot./Act. Frames/Pane	25 8	Picture Center DEC	+36° 21' 44.28"
H / V Panes	1 1	FoV measured H/V [°]	2° 59' 12.7" 1° 59' 46.3"
Exp. [s] / Frame	180	Above horizon [°]	0
Total Time / Pane [min]	24,00 24,00	View Direction	N

Camera Data

ZWO Optical	ASI2600MCAir	ZWOASI2600	
Camera Angle [°]	178,894	Pixel Pitch [µm]	3,761
Gain or ISO	100	Camera Temp. °C	-10

Observation Site

Observation Start	2025-02-21T19:56:50 UTC+/- +1h	Observation End	2025-02-21T21:11:05
Observation Site	DE Göttingen MBR	Site Elevation / Bortle	182 4
Province	NDS	Site Coordinates	51° 34' N, 9° 56' E

Sky & Moon

Sky Index Total Clouds	5,0 100 %	Moon Rise Set	03:10:00 10:01:00
Outside Temp. °C	0	Moon Age [d]	23,5
Moon Phase % Illum.	3rd quarter 38 %	Moon ► Target Dist.	UNKNOWN

Optical Configuration

TS600ASI2600x075i	TS600ASI2600T173R75		
Lens or Scope	TSO APO 90/600	Focuser	M90 TS600 Rack + Pinion
Type Of Build	APO Triplet Refractor	Focuser Position [mm]	40,22 EAF Steps 13867
Brand	TS-Optics	Optical Factor	0,75
Additional Optics	M63 Riccardi 0.75 Reducer	FoL norm actual [mm]	449,25 401,33
Filter	Optolong 2" L-eNhanche	DawesLimitLink	2,32 Arcsec
Diameter [mm]	90	Optical Scale ["/px]	1,727
Aperture / f-stop	4,46		

Other Hardware & Software

GuideScope	ASI2600 Guide Sensor	Mount	ZWO AM3
GuiderHW	ASIAIR Pro	SessionControl	ASIAIR Pro
GuiderSW	ASiAir App	PostProcessingSW	PixInsight, BlurXTerminator, NoiseXTerminator

More ...

Work Folder	2025\20250221_NGC1499_0363_GOE-MBR
Comment	First test of ZWO ASI2600MC AIR and config TS600ASI2600x075i
Remarks	1. Session Planning This session was intended to test the ZWO ASI2600MC AIR and the optical configuration

TS600ASI2600x075i including the 0.75 Riccardi reducer and to find the correct focus point when using this reducer.

2. Location and sky

From my backyard at home. Sky conditions were acceptable in the beginning, but deteriorated more and more, so I had to stop the session after 70 minutes, when guiding totally failed. Only 8 of the 25 photos could be used for integration.

3. Session Results

Quite nice image after many post-processing steps.

Focus points:

- OLeN filter: EAF step position 13867, focuser position= 40,22mm
- No Filter: EAF step=13500, focuser position=39,15mm

4. Plate Solving and Camera Rotation Results

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Projection ..... Gnomonic
Projection origin ..... [3123.246120 2087.382040] px -> [RA: 4 01 50.988 Dec: +
36 21 44.13]
Resolution ..... 1.721 arcsec/px
Rotation ..... 178.893 deg
Reference system ..... ICRS
Observation start time ... 2045-02-21 20:00:00 UTC
Focal distance ..... 450.64 mm
Pixel size ..... 3.76 um
Field of view ..... 2d 59' 11.1" x 1d 59' 45.2"
Image center ..... RA: 4 01 50.988 Dec: +36 21 44.12 ex: -0.000231 px
ey: -0.000150 px
Image bounds:
  top-left ..... RA: 3 54 39.314 Dec: +35 19 39.08 ex: -1.118700 px
ey: -1.772566 px
  top-right ..... RA: 4 09 14.501 Dec: +35 22 56.55 ex: +0.732695 px
ey: -1.105975 px
  bottom-left ..... RA: 3 54 16.540 Dec: +37 18 49.61 ex: -1.784337 px
ey: +0.737019 px
  bottom-right ..... RA: 4 09 14.959 Dec: +37 22 17.91 ex: +0.728327 px
ey: +1.322054 px
```

5. Post Processing

Steps in PixInsight

1. Process Blink to deselect frames with satellite traces
2. Process Subframe Selector to disregard all frames below FWHM 3
3. FBPP on remaining 8 images with drizzle integration, resulting master frame has an extreme green background (sky was not quite clear!)
4. Proceeded with masterLight_BIN-1_6248x4176_EXPOSURE-180.00s_FILTER-NoFilter_RGB_drizzle_1x_autocrop.xisf file
5. renamed the master file to 20250221_NGC1499_ASI2600_0363-01.
6. Automatic Background Extraction
7. PCC Photometric Color Calibration
8. Deconvolution: BlurXTerminator
9. De-Noise: NoiseXTerminator
10. Curves Transformation to enhance the colors
11. Histogram Transform to generate a final full stretched image
12. save as .jpg for publishing

Image selection, registration, background enhancement and color correction were done in PixInsight (Post Processing using PixInsight (starlust.de) ,

No further image post processing was required.

No color or hue changes were made; the final image has natural colors.

6. Lessons Learned

Found initial focuser settings for this configuration a) without filter and b) with filter.

Difference between both are ~ 360 steps or 1.044mm

7. Main logfile entries

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